M-Series Light Switch

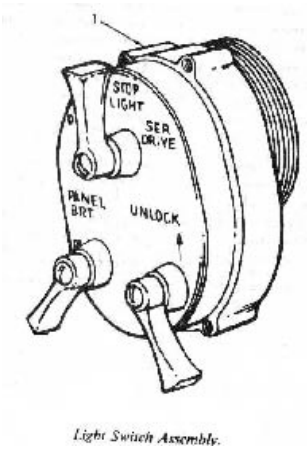
Since the 1950s, most American M-Series military vehicles are equipped with the same three lever light switch assembly that controls all the vehicle lighting. It is installed in the dash of M-37s from the 1950s and HMMWVs built in the 1990s, or even later vehicles, until replaced by a pushbutton design in 2002.

This page provides the wiring information for that switch along with details of its design and operation.

M-Series 3-lever light switch installed in HMMWV dash.

M-Series 3-lever Light Switch

M-Series 3-lever light switch assembly, used on all M-series military vehicles.



Light Switch Assembly.

Click on image for a drawing of full details of the 3-lever light switch.

The M-series three lever light switch is the single point of control for all the vehicle lighting circuits. It is identical on almost all U.S. military vehicles in order to simplify logistics of supply, maintenance, and training of drivers.

The vehicle dash panel has a pre-cut hole for the switch and holes for the mounting bolts, as you can see in the top photo of a HMMWV dash with the switch installed. The rear of the three lever light switch is set up to receive a large cable connector to tie the switch into the vehicle wiring harness. The circular, threaded rim on the switch back is notched so the connector can only go in one way. The male pins are identified by small letters molded into the base material. The letters are hard to see but they are there, running from A to N with no G (gee) or I (eye). Just below is a table of what the pins connect to. The circuit numbers are the standard M-Series circuits that are common to almost all U.S. military vehicles. If you have the military cables, the circuit numbers will be on metal tags crimped onto each wire in the cable bundle running from the female connector on the wiring harness. If you make up a cable, it would be best to tag the wires the same way since it will make it easier to hook up to other military components (eg, turn signal switch, flasher, composite lights etc.)

In April of 2002, TACOM and the Defense Supply Center in Columbus, Ohio began a retrofit program to replace the standard three lever light switch on American M-Series military vehicles. The resulting new pushbutton military light switch design, described on the linked Olive-Drab.com page, is a direct plug-in replacement that can be used in any existing MV that used the 3-lever unit. The coupling on the back of the push button switch is the same MIL-C-28-51 connector as on the 3-lever switch.

Connector Pin	Circuit Number	Circuit Usage
A	75	Stop Lamp Switch. Runs through brake light switch to Pin K.
B	40	Panel/Instrument Lights.
C	22	Stop Lights. Hot when brakes applied. Runs to turn signal switch if used.
D	19	Black Out Driving Lamp.
E	20	Black Out Marker and Taillamps.
F	15	Battery Power Lead.
H	21	Service Taillamps.
J	467	To flasher switch. Hot when stop or head lights on.
K	75	Stop Lamp Switch. Runs from pin A through brake light switch.
L	491	Parking Lights (if used).
M	16	Service Headlamps. To dimmer switch or headlight relay.
N	23	Black Out Stop Lamp.

Since they are often used together, here is the arrangement of the pins on the Turn Signal switch used on later M-Series vehicles:

Connector Pin	Circuit Number	Circuit Usage
A	460	To front right signal/marker lights.
B	461	To front left signal/marker lights.
C	22-461	To rear left brake light.
D	22	From pin C on three-lever light switch. Indicates that brake lights are on.
E	22-460	To rear right brake light.
F		Power to flasher unit. To pin B on flasher cable.
G	467	From pin J on three-lever light switch. Hot when service stop or headlamps on.
H		Flasher pulse from flasher unit. From pin A on flasher cable.

Further information about the turn signal switch and wiring hooked to it can be found at this link.